



Effective Health Care

Sun Exposure and Breast Cancer

Next Steps

The nominator is interested in research about whether sun exposure could cause breast cancer.

Due to limited program resources at this time, AHRQ will not further assess this topic. We identified a systematic review which may be useful for the nominator. No further activity on this topic will be undertaken by the Effective Health Care (EHC) Program.

Topic Summary and Considerations

Topic Name and Number: Sun exposure and breast cancer, #737

Date: 8/18/2017

Key question from the nomination:

Does sun exposure lead to breast cancer?

- 12.4 percent of women born in the United States today will develop breast cancer at some time during their lives (1).
- Risk factors for breast cancer include age, certain genetic mutations, family history, personal history of breast cancer, start of periods before 12 years old, never being pregnant, start of menopause after 55 years old, overweight or obese after menopause, and dense breast tissue (2).
- Vitamin D, which is obtained from food and supplements or produced by the body in response to sun exposure, is converted into the hormone calcitriol in several different body tissues, including breast tissue. It has been hypothesized that Vitamin D could be connected to breast cancer.
- While we are unable to further assess this topic at this time, this reference may be useful to the nominator
 - Newberry SJ, Chung M, Shekelle PG, Booth MS, Liu JL, Maher AR, Motala A, Cui M, Perry T, Shanman R, Balk EM. Vitamin D and Calcium: A Systematic Review of Health Outcomes (Update). Evidence Report/Technology Assessment No. 217. (Prepared by the Southern California Evidence-based Practice Center under Contract No. 290-2012-00006-I.) AHRQ Publication No. 14-E004-EF. Rockville, MD: Agency for Healthcare Research and Quality. September 2014.

References

1. Breast Cancer Risk in American Women Bethesda, MD: National Cancer Institute; 2012 [cited 2017 18 August 2017]. Available from: <https://www.cancer.gov/types/breast/risk-fact-sheet>
2. What Are the Risk Factors for Breast Cancer? Atlanta, GA: Centers for Disease Control and Prevention; 2016 [cited 2017 18 August 2017]. Available from: https://www.cdc.gov/cancer/breast/basic_info/risk_factors.htm.